Product designation			Power contactor
Product type designation			BF230
Contact characteristics			
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	350
Operational current Ie			
	AC-1 (≤40°C)	A	350
	AC-1 (≤55°C)	A	290
	AC-1 (≤70°C)	A	250
	AC-3 (≤440V ≤55°C)	A	230
	AC-4 (400V)	A	110
Rated operational power AC-1 (T≤40°C)			
	230V	kW	132
	400V	kW	230
	500V	kW	253
	690V	kW	397
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	145
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	270
	220V	A	225
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	270
	220V	A	270
	330V	A	225
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	350
	220V	A	350
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	135
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			

	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	225
	220V	A	180
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	250
	220V	A	225
	330V	A	180
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	250
	220V	A	225
	330V	A	210
	460V	A	180
Short-time allowable current for 10s (IEC/EN60947-1)		A	1840
Protection fuse			
	gG (IEC)	A	400
	aM (IEC)	A	250
Making capacity (RMS value)		A	1955
Breaking capacity at voltage			
	440V	A	1955
	500V	A	1564
	690V	A	1377
Resistance per pole (average value)		m?	0.18
Power dissipation per pole (average value)			
	Ith	W	21
	AC3	W	9.3
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	159
	max	lbin	159
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Weight		g	4000
Operations			
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			

				rated load	cycles 1000000
EMC compatibility					yes
AC coil operating					
Rated AC voltage at 50/60Hz, 60Hz					
				min	V 60
				max	V 130
AC operating voltage					
	of 50/60Hz coil powered at 50Hz				
		pick-up			
				min	%Us 80 Us min
				max	%Us 110 Us max
		drop-out			
				max	%Us ≤70 Us min
	of 50/60Hz coil powered at 60Hz				
		pick-up			
				min	%Us 80 Us min
				max	%Us 110 Us max
		drop-out			
				max	%Us ≤70 Us min
AC average coil consumption at 20°C					
	of 50/60Hz coil powered at 50Hz				
				in-rush	VA 160…230
				holding	VA 1.5...3.0
	of 50/60Hz coil powered at 60Hz				
				in-rush	VA 160…230
				holding	VA 1.5...3.0
	of 60Hz coil powered at 60Hz				
				in-rush	VA 160…230
				holding	VA 1.5...3.0
Dissipation at holding ≤20°C 50Hz					W 1.5...3.0
DC coil operating					
DC rated control voltage					
				min	V 60
				max	V 130
DC operating voltage					
	pick-up				
				min	%Us 85 Us min
				max	%Us 110 Us max
	drop-out				
				max	%Us ≤70 Us min
Average coil consumption ≤20°C					
				in-rush	W 160…230
				holding	W 1.5...3.0
Max cycles frequency					
Mechanical operation					cycles/h 1000
Operating times					
Average time for Us control					
	in AC				
		Closing NO			
				min	ms 50
				max	ms 100
		Opening NO			
				min	ms 35
				max	ms 75

UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	75
		220/230V	HP	75
		460/480V	HP	150
		575/600V	HP	200
General USE				
	Contactor			
		AC current	A	350
Short-circuit protection fuse, 600V				
	High fault			
		Short circuit current	kA	100
		Fuse rating	A	400
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	A	400
		Fuse class		RK5

Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-40
		max	°C	70
	Storage temperature			
		min	°C	-50
		max	°C	80
Max altitude			m	3000

Resistance & Protection

Pollution degree	3

ETIM classification

ETIM 8.0	EC000066 - Power contactor, AC switching